



**Bharat Heavy Electricals Limited**  
**Transmission Business Group**  
**Materials Management**  
**Tower-A, 5th floor, Advant Navis Business Park**  
**Plot No. 7, Sector-142, Expressway Noida-201305**  
**Telephone : 0120-6748464**  
**E-mail : vineet.gupta@bhel.in**

**SUBJECT- Corrigendum-2**

**DATE 14.10.2016**

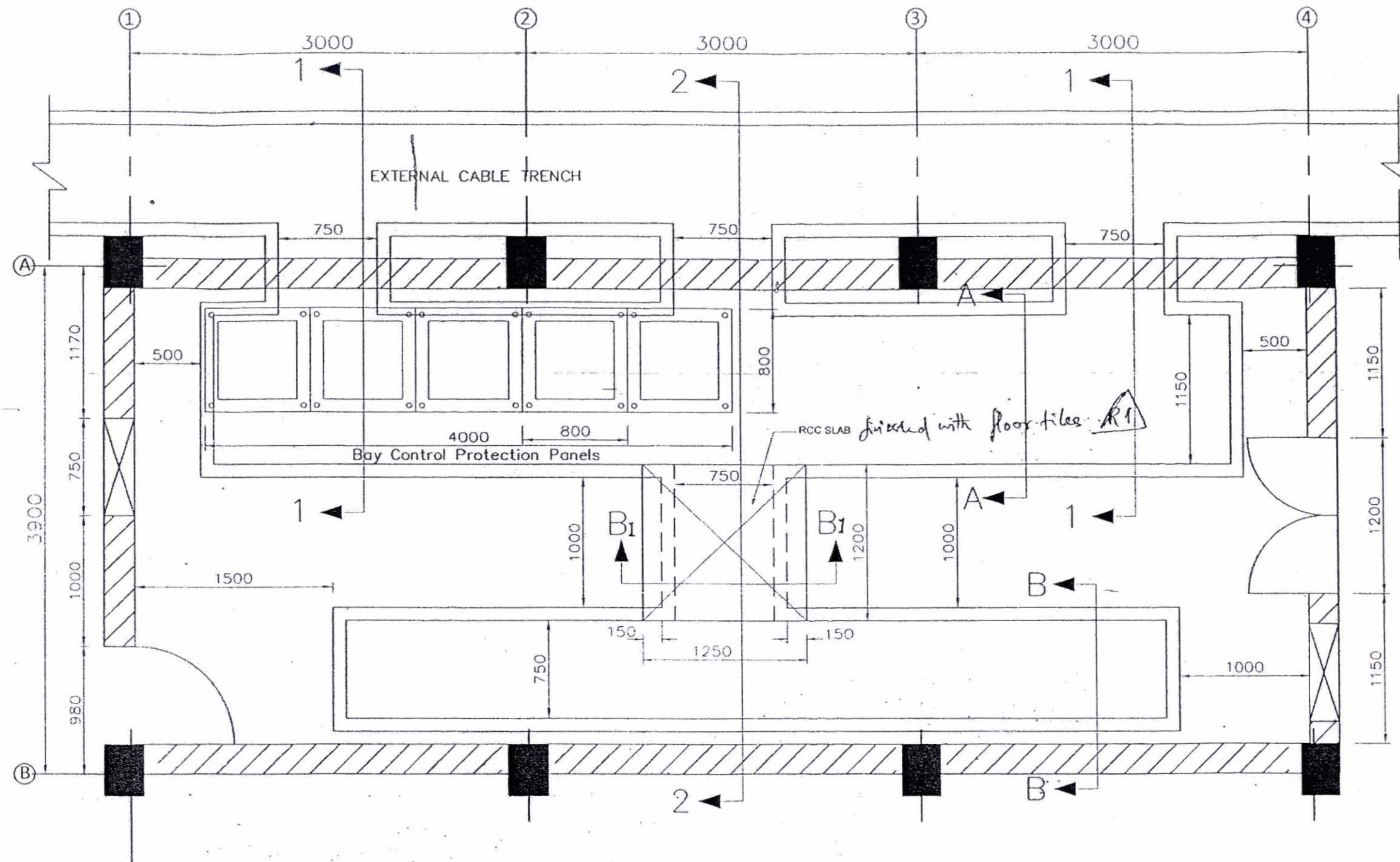
- |    |                    |   |                               |
|----|--------------------|---|-------------------------------|
| 1. | Project            | : | POWERGRID AJMER & CHITTORGARH |
| 2. | Equipment / Item   | : | Fire Protection system        |
| 3. | Enquiry No. / Date | : | 346E156 Rev.0 _NIT 29493      |

SPR drawings & Trench layout is attached.

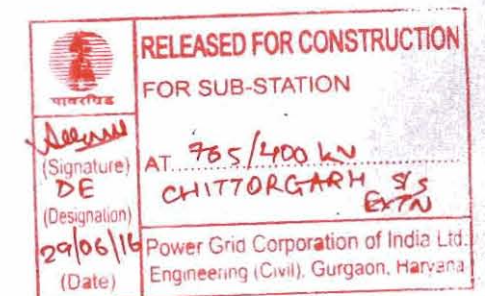
All other terms and conditions of tender shall remain same. Kindly ensure to submit your offer as due.

(Vineet Gupta)  
Sr. Engineer- TBMM





PANEL ARRANGEMENT PLAN LAYOUT



R1-1) SLAB FOR CABLE TRENCH ADDED  
2) CABLE TRANSIT SYSTEM ADDED

NOTES.:

- 1) ALL DIMENSIONS ARE IN MM. AND LEVEL ARE IN METER. UNTIL OTHERWISE SPECIFIED.
- 2) FOR INTERNAL CABLE TRENCH LAYOUT REFER APPROVED SUB-STATION SPECIFIC ELECTRICAL DRAWING.
- 3) PANELS SHOWN ARE INDICATIVE ONLY
- 4) ALL CABLE ENTRIES SHALL BE PROVIDED WITH "CABLE TRANSIT SYSTEM".

REFERENCE DRG.:

STANDARD SWITCHYARD PANEL ROOM,  
DRG.NO.: C-ENGG-STD-SPR-STR-3011 (Rev-01) DATED: 10.12.2010

DATA SONDIHYA/PANEL ROOM

POWER GRID CORPORATION  
OF INDIA LIMITED  
(A Government of India Enterprise)



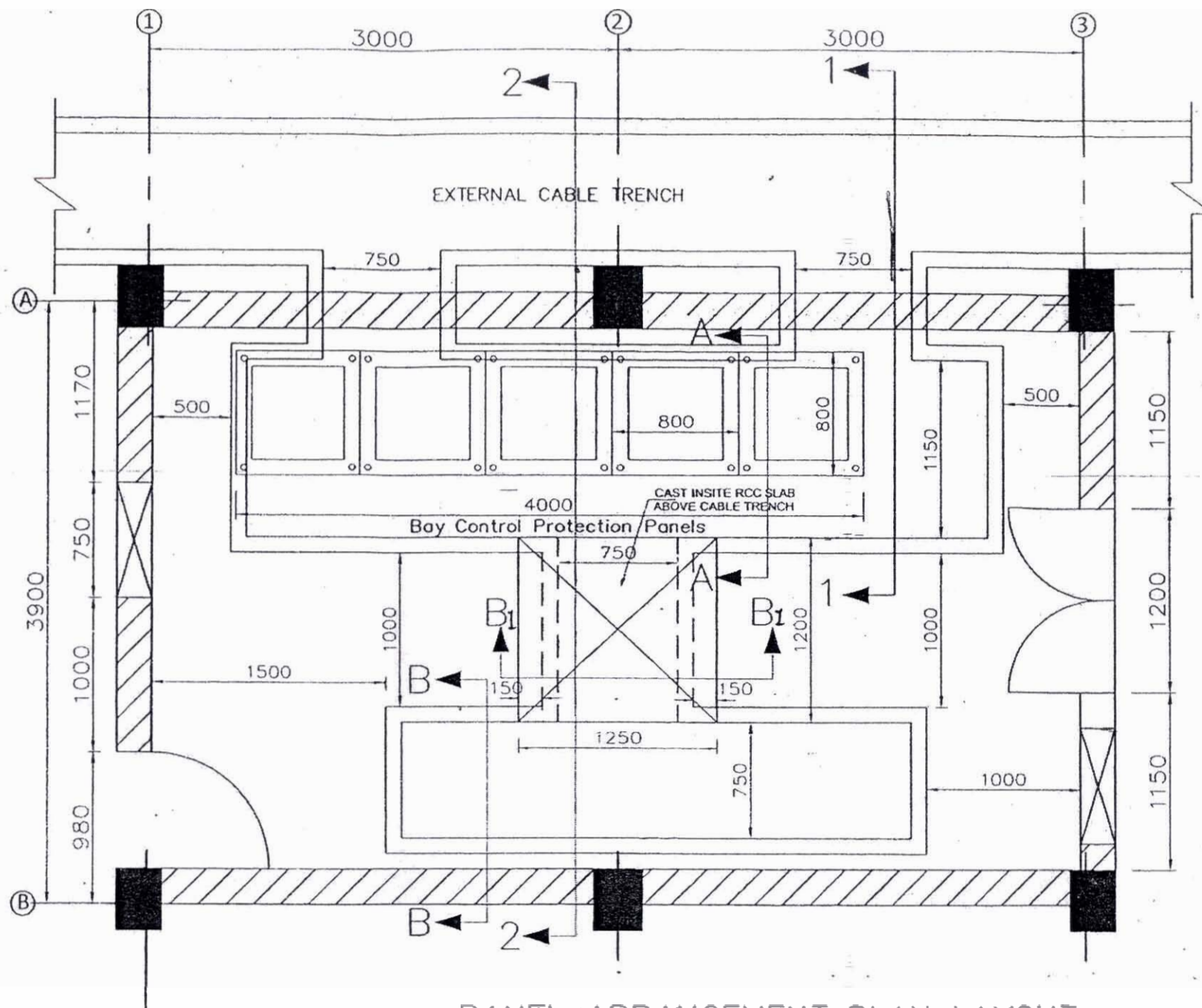
PROJECT : 765/400/220 KV SUB-STATION.....

TITLE : STANDARD SWITCHYARD PANEL ROOM  
( FOR 9 METER. )  
GA & R.C.C DETAIL OF INTERNAL CABLE TRENCH

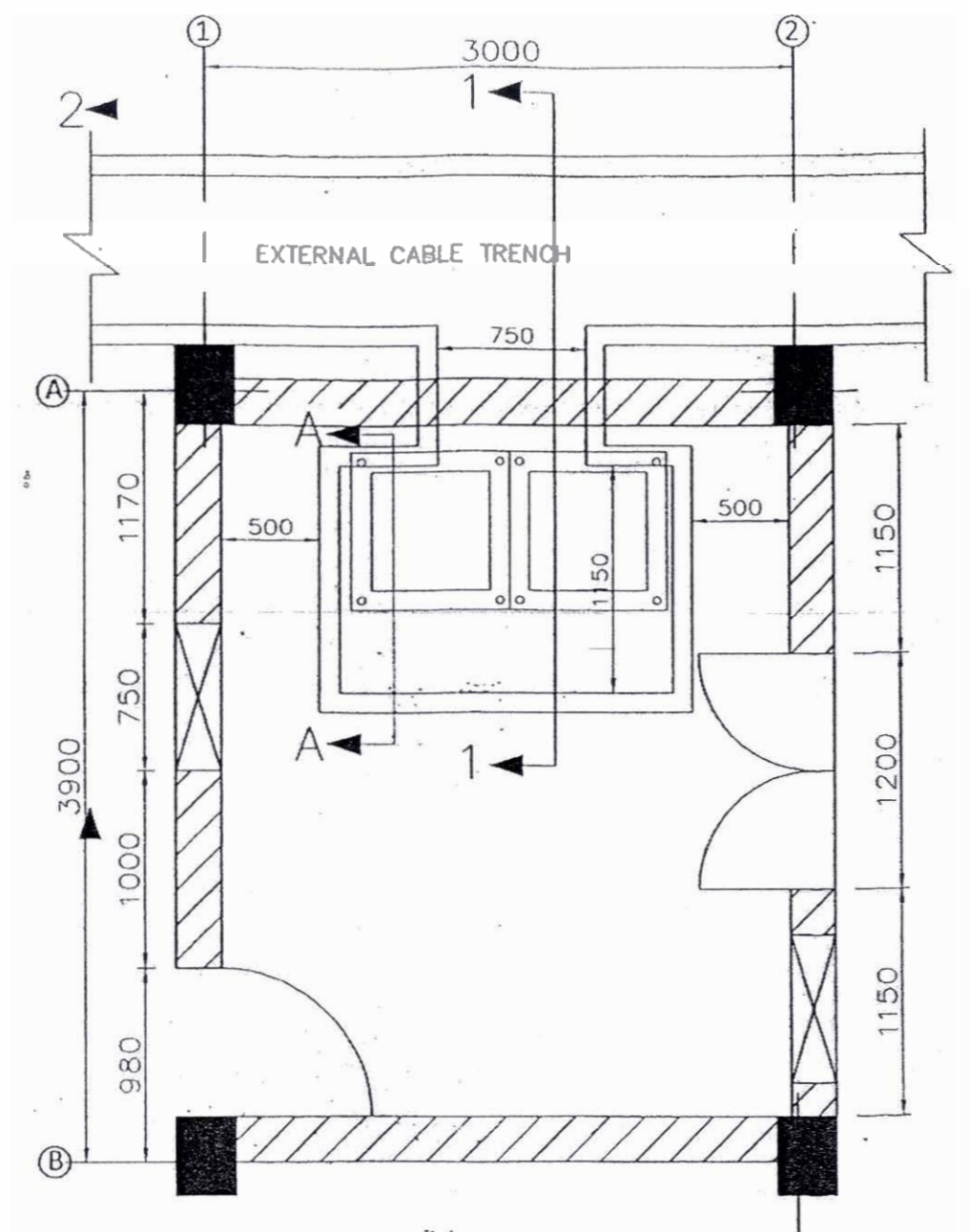
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|----------------------------------------|--------------------------------------|----------------------------------------|----------------------------------------|---------------------------------------|-----------------|
| PREP BY.<br>T.K.SONDIHYA<br>JE (CIVIL) | REV'D BY.<br>S.SHARMA<br>CDE (CIVIL) | REV'D BY.<br>R.SRIVASTAVA<br>DGM (S/S) | REV'D BY.<br>A.S.PANDEY<br>DGM (CIVIL) | REV'D BY.<br>K.RACHURAM<br>GM (CIVIL) | DATE<br>16-4-13 |
|----------------------------------------|--------------------------------------|----------------------------------------|----------------------------------------|---------------------------------------|-----------------|

DRAWING NO. C-ENGG-STD-SPR-STR-3012  
(Sht. 1 of 3)

SCALE  
NTS  
REV  
1



PANEL ARRANGEMENT PLAN LAYOUT



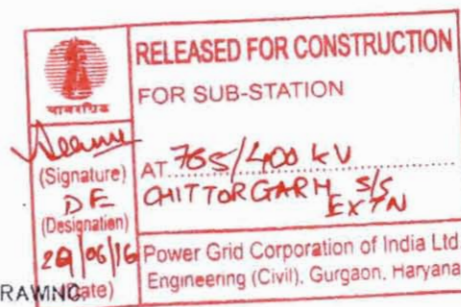
PANEL ARRANGEMENT PLAN LAYOUT

### NOTES.:

- 1) ALL DIMENSIONS ARE IN MM. AND LEVEL ARE IN METER. UNTIL OTHERWISE SPECIFIED.
- 2) FOR INTERNAL CABLE TRENCH LAYOUT REFER APPROVED SUB-STATION SPECIFIC ELECTRICAL DRAWING.
- 3) PANELS SHOWN ARE INDICATIVE ONLY.
- 4) ALL CABLE ENTRIES SHALL BE PROVIDED WITH "CABLE TRANSIT SYSTEM"

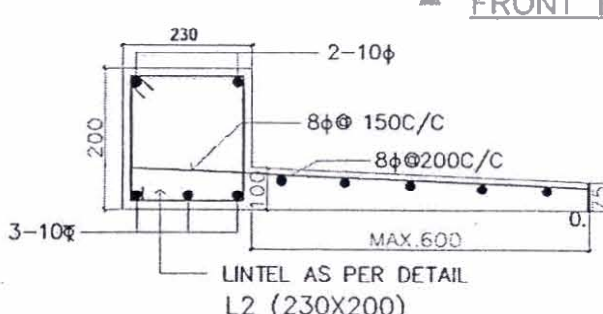
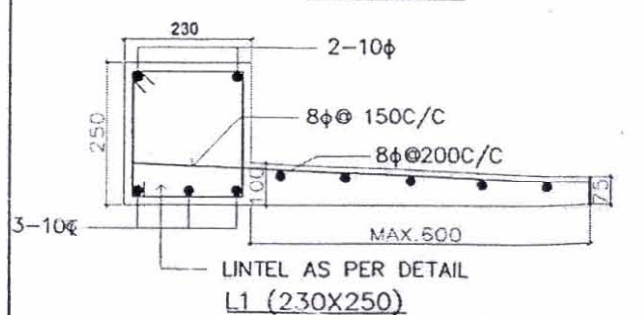
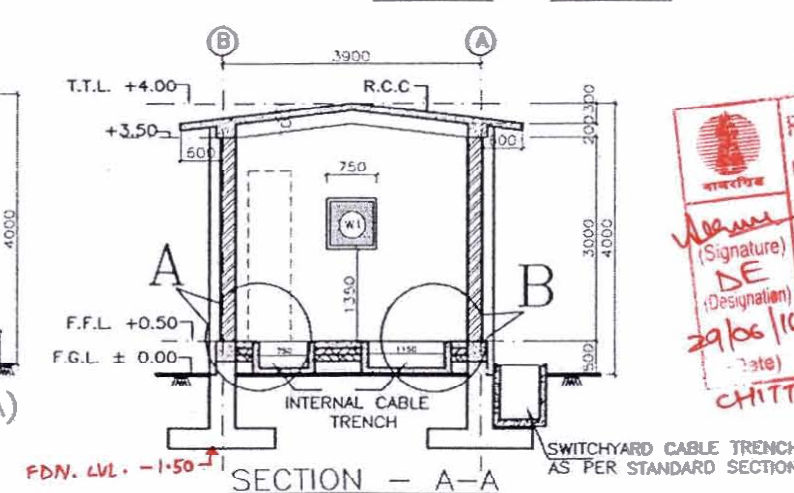
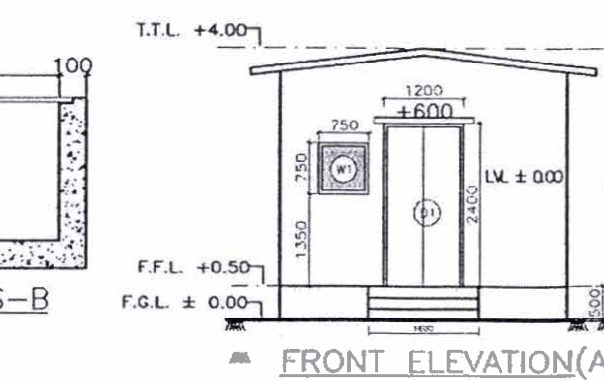
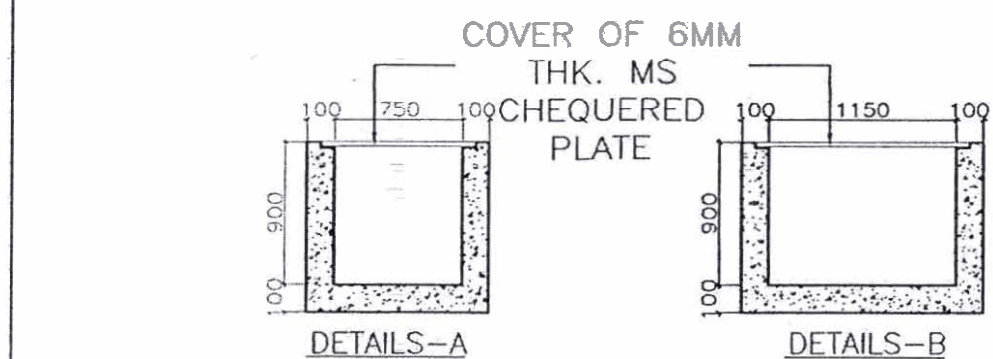
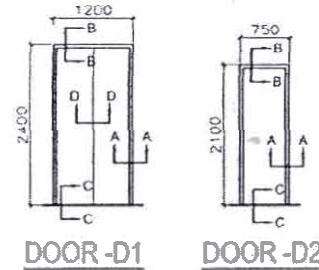
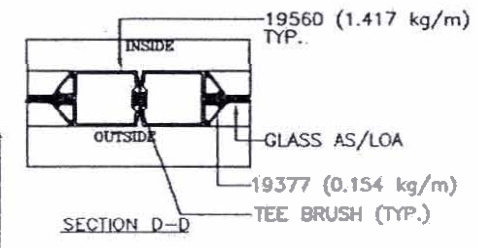
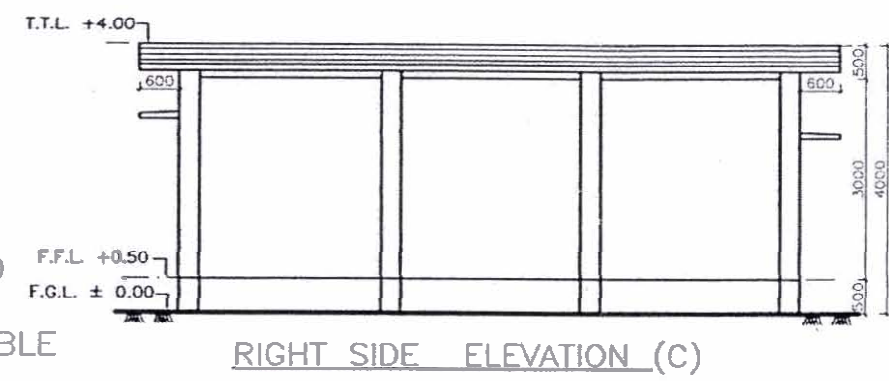
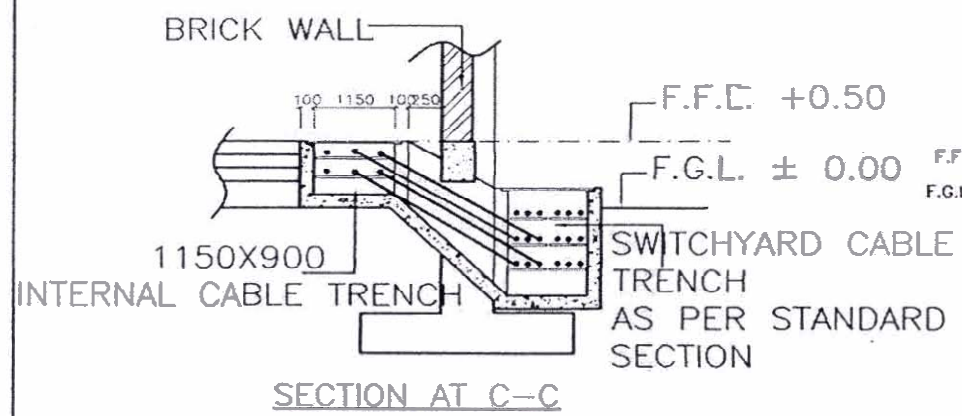
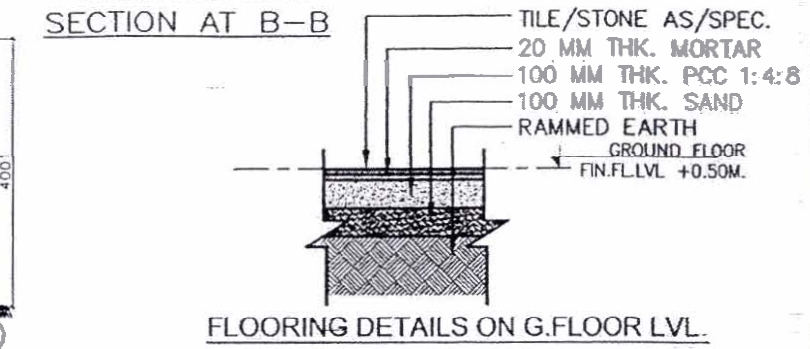
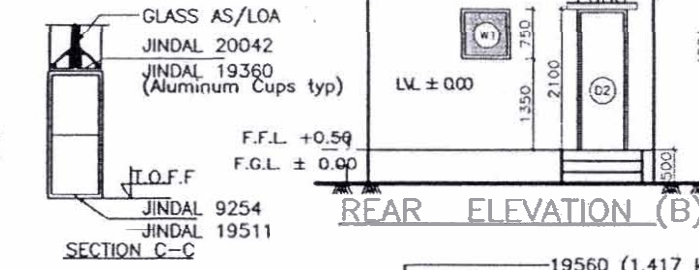
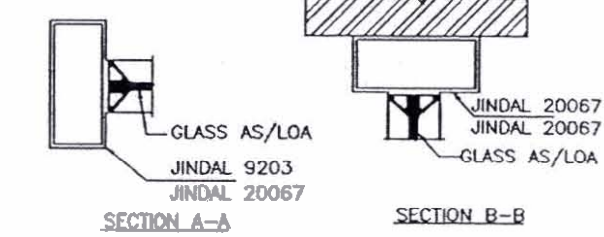
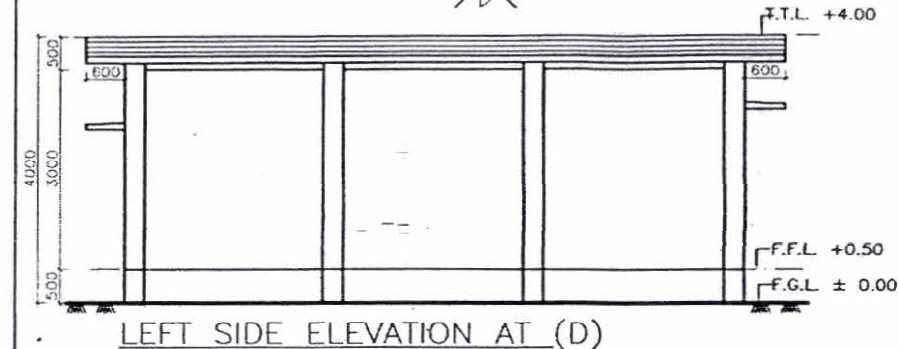
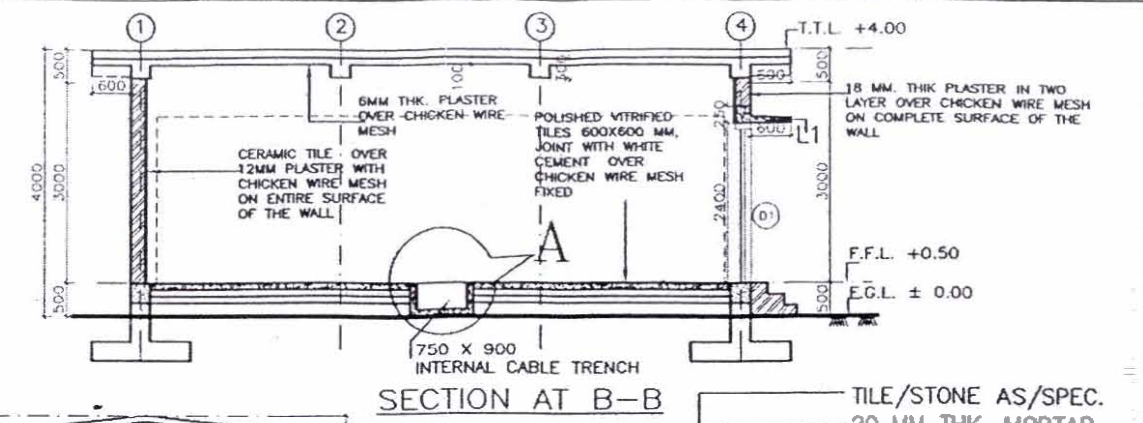
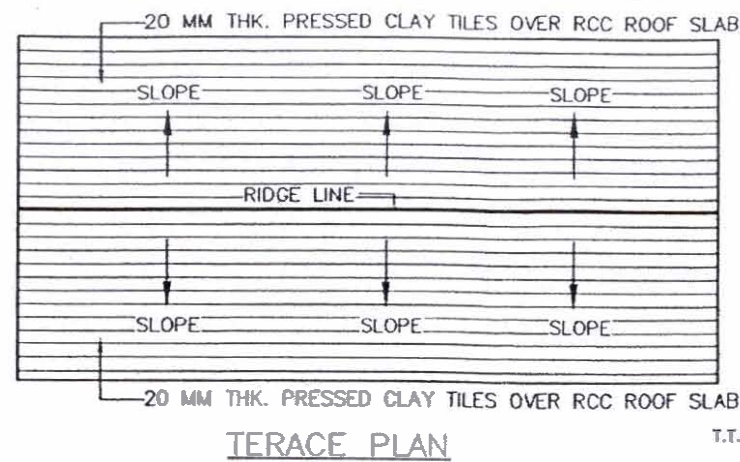
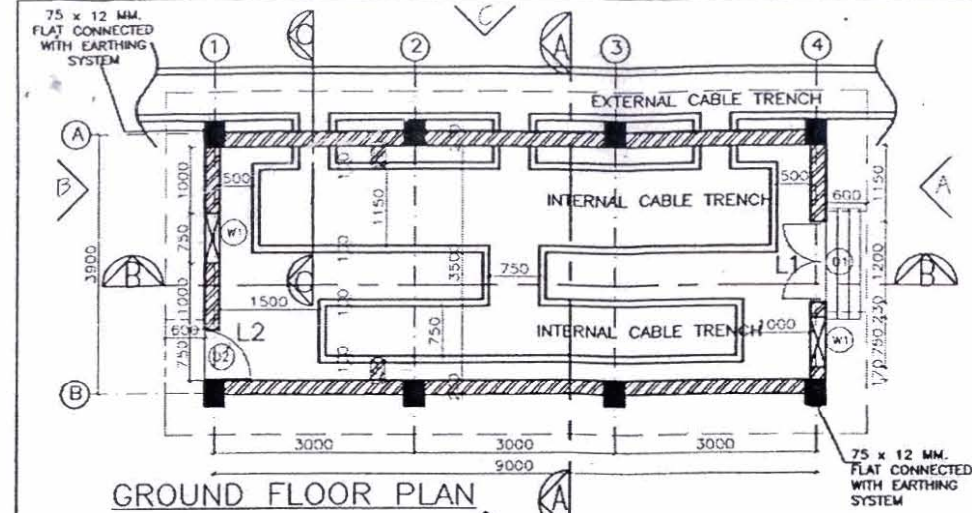
### REFERENCE DRG.:

STANDARD SWITCHYARD PANEL ROOM,  
DRG. NO.: C-ENGG-STD-SPR-STR-3011 (Rev-01) DATED: 10.12.2010



R1- SLAB FOR CABLE TRENCH ADDED

|                                                                                                            |                                      |                                        |                                        |                                       |                 |
|------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------|----------------------------------------|---------------------------------------|-----------------|
| POWER GRID CORPORATION OF INDIA LIMITED<br>(A Government of India Enterprise)                              |                                      |                                        |                                        |                                       |                 |
| PROJECT : 765/400/220 KV SUB-STATION.....                                                                  |                                      |                                        |                                        |                                       |                 |
| TITLE : STANDARD SWITCHYARD PANEL ROOM<br>(FOR 6 & 3 METER.)<br>GA & R.C.C DETAIL OF INTERNAL CABLE TRENCH |                                      |                                        |                                        |                                       |                 |
| PREP BY:<br>T.K.SONDHIYA<br>JE (CIVIL)                                                                     | REV'D BY:<br>S.SHARMA<br>CDE (CIVIL) | REV'D BY:<br>R.SRIVASTAVA<br>DOE (S/S) | REV'D BY:<br>A.S.PANDEY<br>DOE (CIVIL) | REV'D BY:<br>K.RAGHURAM<br>GM (CIVIL) | DATE<br>16-1-13 |
| DRAWING NO. C-ENGG-STD-SPR-STR-3012<br>(SH. 2 OF 3)                                                        |                                      |                                        |                                        |                                       | SCALE<br>NTS    |
|                                                                                                            |                                      |                                        |                                        |                                       | REV<br>1        |



THIS DRAWING HAS BEEN REPRODUCED FROM EARLIER APPROVED DRAWING NO. C-ENG-STD-PR-ARCH-3000

| REV. | DESCRIPTION | CIVIL. | REVD. | ELEC. | REVD. | REVD. | APPD. | DATE. |
|------|-------------|--------|-------|-------|-------|-------|-------|-------|
|      |             |        |       |       |       |       |       |       |

| Door/Window Schedule |             |                      |
|----------------------|-------------|----------------------|
| Doors                |             |                      |
| Typ.                 | Size        | Description          |
| D1                   | 1200 x 2400 | ALUMINUM GLAZED DOOR |
| D2                   | 750 x 2100  | ALUMINUM GLAZED DOOR |

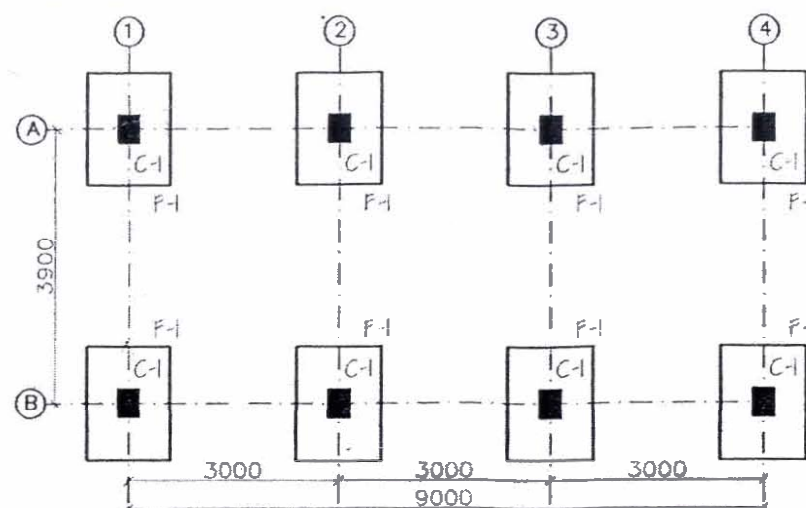
| Windows |           |        |      |                       |
|---------|-----------|--------|------|-----------------------|
| Typ.    | Size      | Lintel | Sill | Description           |
| W1      | 750 x 750 | 2100   | 1350 | OPENING FOR FIXING AC |

NOTE :-

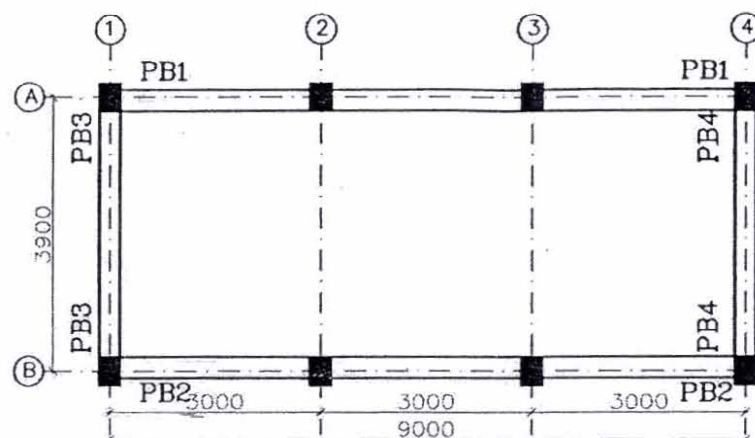
- ALL DIMENSIONS ARE IN MM. AND LEVELS ARE IN MTR.
- OPENING ARE PROVIDED FOR INSTALLATION OF ACS. IN CASE ONE AC IS PROVIDED, OTHER OPENING SHALL BE CLOSED.
- 22GX12 MM. CHICKEN WIRE MESH TO BE PROVIDED FOR ALL WALL, FLOORING AND ROOF. CHICKEN WIRE MESH SHALL BE CONNECTED WITH EARTHING SYSTEM THROUGH 75X12MM FLAT FIXED ON DIAGONALLY OPPOSITE COLUMNS ON ITS OUTER SURFACE
- SWITCHYARD PANEL ROOM IS A MODULAR STRUCTURE OF 3M. LENGTH AND 3.9M WIDE THE CONSTRUCTION OF SWYD PANEL ROOM SHALL BE CARRIED OUT IN A MULTIPLE OF 3M LENGTH KEEPING WIDTH 3.9M AS CONSTANT AS PER REQUIREMENT OF SITE SPECIFIED IN LOA/ LAYOUT APPD. BY S/S ENGG.

POWER GRID CORPORATION OF INDIA LIMITED  
(A Government of India Enterprise)

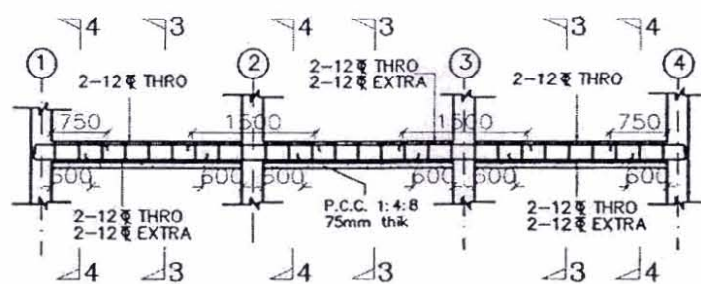
|             |                                                                    |
|-------------|--------------------------------------------------------------------|
| PROJECT :   | 400/220 KV SUB-STATION                                             |
| TITLE :     | STANDARD SWITCHYARD PANEL ROOM ARCHITECTURAL DRAWING OF PANEL ROOM |
| DRAWING NO. | C-ENG-STD-PR-ARCH-3000                                             |
| SCALE       | NTS                                                                |
| REV.        | 0                                                                  |



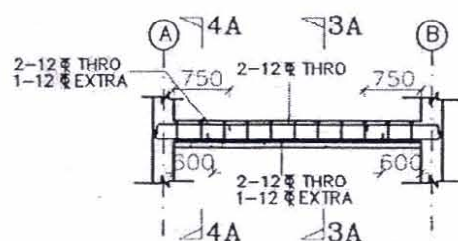
FOUNDATION PLAN



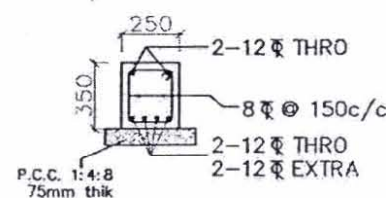
PLINTH BEAM PLAN



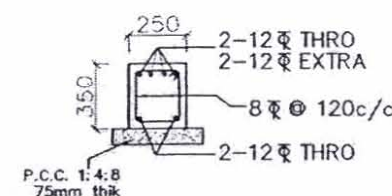
PB1 & PB2(250 X 350)  
ON GRID A & B



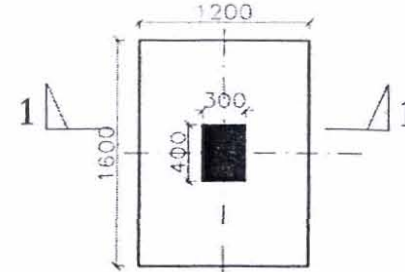
PB3 & PB4(250 X 350)  
ON GRID 1&4



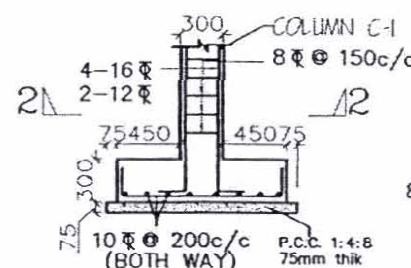
BEAM SECTION AT 3-3



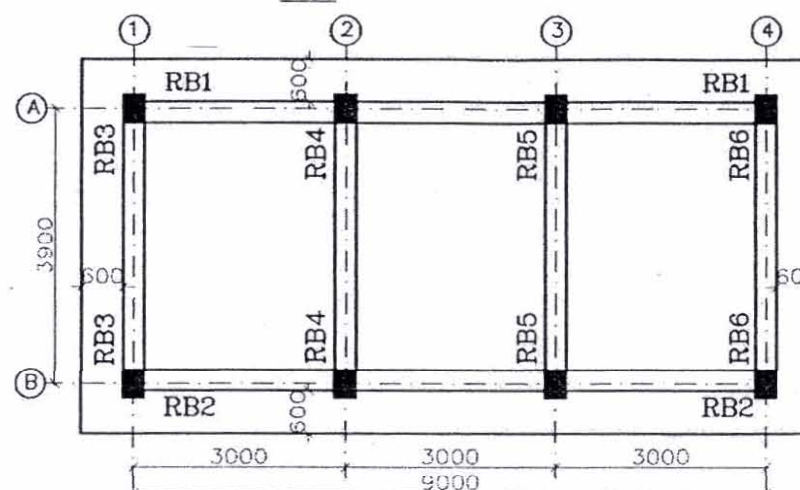
BEAM SECTION AT 4-4



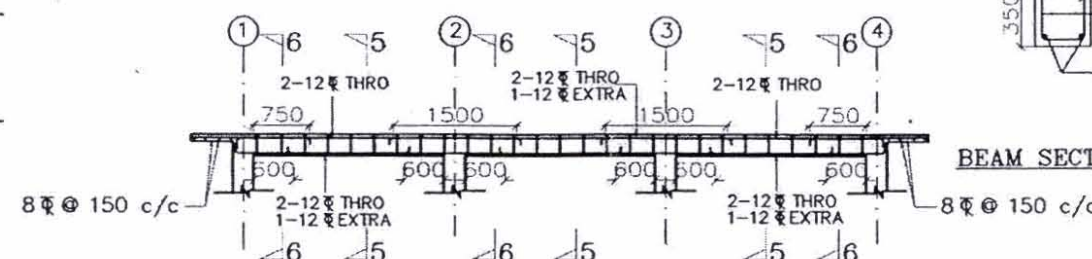
FOOTING F-1  
TYP.



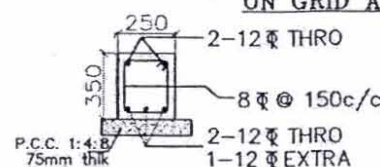
SECTION AT 1-1  
TYP.



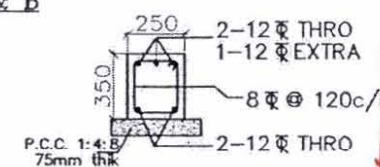
ROOF BEAM PLAN



RB1 & RB2 (250 X 350)  
ON GRID A & B

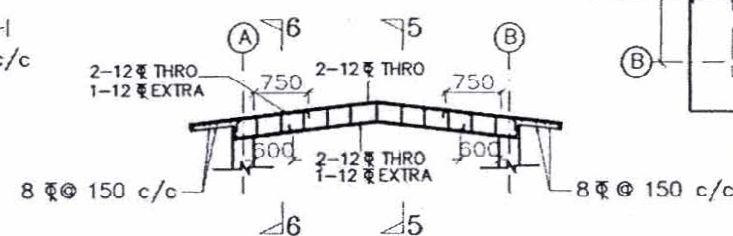


BEAM SECTION AT 3A-3A

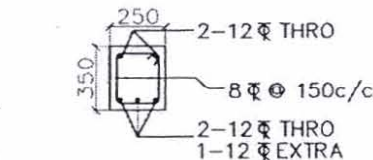


BEAM SECTION AT 4A-4A

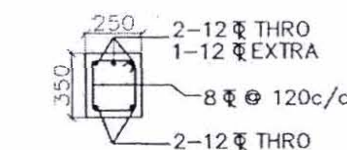
COLUMN SECTION AT 2-2  
TYP.



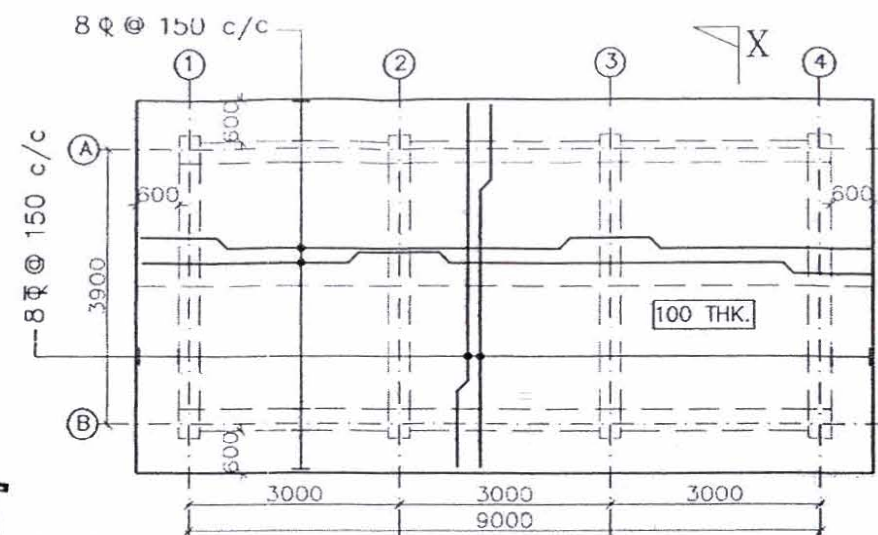
ON GRID 1,2,3&4



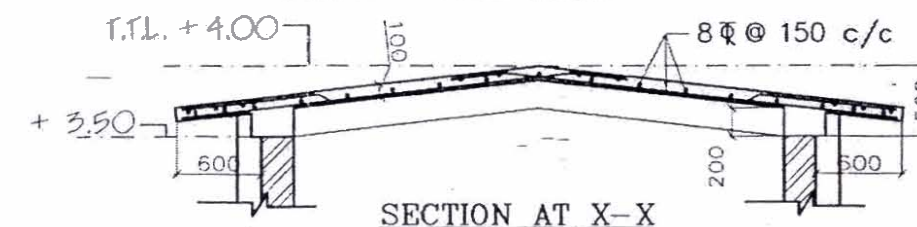
BEAM SECTION AT 5-5



BEAM SECTION AT 6-6



REINFORCEMENT ROOF PLAN  
OF TOP SURFACE SLAB



SECTION AT X-X

NOTES :-

- ALL LINEAR DIMENSION ARE IN MM AND LEVELS IN METERS.
- THIS DRAWING IS NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
- ±0.00 CORRESPONDS TO FINISHED GROUND LEVEL (F.G.L.)
- ALL R.C.C. USED SHALL BE OF GRADE AS PER BPS.
- ALL R/F STEEL SHALL BE HYSD CONFORMING TO IS:1786. /TMT BARS AS PER BPS. (EQUIVALENT GRADE)
- CLEAR COVER FOR MAIN R/F BARS SHALL BE 40MM FOR COLUMN, 25MM FOR BEAMS, 15MM FOR SLAB. 50MM FOR FOOTINGS.
- LAP LENGTH FOR R/F BARS SHALL BE 47 X DIA OF BAR.
- LAP SHALL NOT BE PROVIDED WITHIN A JOINT, OR WITHIN A DISTANCE 2 X DEPTH FROM THE EACH JOINT FACE, OR 1/4 OF MEMBER LENGTH FROM JOINT FACE.
- SPACING OF STIRRUPS PROVIDED OVER THE ENTIRE SPLICE LENGTH SHALL NOT EXCEED 150 MM.
- ALL FOUNDATION SHALL BE TAKEN AT LEAST 500MM BELOW VIRGIN SOIL. LOOSE POCKET IF ANY SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH P.C.C. (1:4:8)
- REINFORCEMENT DETAILING SHALL BE AS PER SP - 34 AND IS 13920 LATEST.
- NET SAFE BEARING CAPACITY AT A DEPTH OF 1.5M. BELOW FGL IS ASSUMED AS 9T/M2.
- Ld DEVELOPMENT LENGTH = 47 DIAMETER OF BAR.
- THE FOUNDATION SHOULD REST MINIMUM 500MM IN VIRGIN SOLD BY PROVIDING WELL COMPACTED STONE PACKING IF REQUIRED (SIZE 40mm TO 150mm) WITH INTERSTICES FILLED WITH SAND. STONE PACKING TO BE COMPACTED IN LAYERS OF 300mm AS PER CPWD SPEC.
- SWITCHYARD PANEL ROOM IS A MODULAR STRUCTURE OF 3M LENGTH AND 3.9M WIDTH THE CONSTRUCTION OF SWYD PANEL ROOM SHALL BE CARRIED OUT IN MULTIPLES OF 3M LENGTH KEEPING WIDTH 3.9M AS CONSTANT AS PER REQUIREMENT OF SITE SPECIFIED IN LOA/ LAYOUT APPD. BY S/S ENGG.

THIS DRAWING HAS BEEN REPRODUCED FROM EARLIER  
APPROVED DRAWING NO. C-ENGG-STD-SPR-STR-3011

RELEASED FOR CONSTRUCTION  
FOR SUB-STATION  
(Signature) AT 765/400 KV  
(Designation) DE CHITTORGARH S/S  
(Date) 29/06/16 Power Grid Corporation of India Ltd.  
Engineering (Civil), Gurgaon, Haryana  
PROJECT :

RELEASED FOR TENDER/CONSTRUCTION

POWER GRID CORPORATION  
OF INDIA LIMITED  
(A Government of India Enterprise)



765/400/220 KV SUB-STATION

| REV.       | DESCRIPTION | CIVIL. | REVD. | ELEC. | REVD. | REVD. | APPD. | DATE. |
|------------|-------------|--------|-------|-------|-------|-------|-------|-------|
|            |             |        |       |       |       |       |       |       |
| CLEARED BY |             |        |       |       |       |       |       |       |

TITLE : STANDARD SWITCHYARD PANEL ROOM  
G.A. AND RCC DETAIL OF PANEL ROOM

DRAWING NO. C-ENGG-STD-SPR-STR-3011  
SCALE N.T.S  
REV. 0